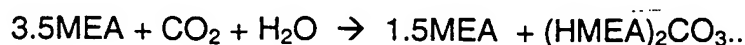


WHAT IS CLAIMED IS:

1. A process for producing a copper-containing aqueous solution, comprising dissolving a copper mass in the presence of an oxidant in an aqueous leach liquor containing monoethanolamine and $(\text{HMEA})_2\text{CO}_3$, wherein said leach liquor is produced by partially carbonating the monoethanolamine.
2. A process according to claim 1, wherein said oxidant is selected from the group consisting of air and oxygen.
3. A process according to claim 1, wherein the process is carried out at a temperature of 40–80°C.
4. A process according to claim 3, wherein said temperature is 45–55°C.
5. A process according to claim 1, wherein said leach solution is re-circulated at a constant rate.
6. A process according to claim 5, wherein said recirculation is carried out at a constant rate of about one tenth of the leach solution volume per minute.
7. A process according to claim 1, wherein the reaction is represented by the following equation:
$$\text{Cu} + 1.5\text{MEA} + (\text{HMEA})_2\text{CO}_3 + 1/2\text{O}_2 \rightarrow \text{Cu}(\text{MEA})_{3.5}\text{CO}_3 + \text{H}_2\text{O}$$
8. A process according to claim 1, wherein said partial carbonating of said the monoethanolamine is according to the following equation:



9. A process according to claim 1, wherein the carbon dioxide is present in an amount of about 5-30% by weight.
10. A process according to claim 1, wherein the pH is 8.0-11.3.
11. A process according to claim 1, performed as a batch process.
12. A process according to claim 11, wherein the average copper dissolution rate is about 17g/l-hour.
13. A process according to claim 1, performed as a continuous process.